## THE INVENTION CLAIMED IS

- In a device for solid phase micro-extraction, the improvement comprising:

   a porous sheath,
   said porous sheath containing active extraction media for carrying a

  solid phase micro-extraction process.
- 2. The improvement of Claim 1, wherein said porous sheath comprises a tube adapted to be connected to a syringe.
- 3. The improvement of Claim 2, wherein said tube is provided with perforations along at least a section of length of said tube.
- 4. The improvement of Claim 3, wherein said perforations are located along substantially an entire length of said tube.
- 5. The improvement of Claim 2, wherein said tube includes an end section selected from the group consisting of a closed end section and an open end section.
- 6. The improvement of Claim 5, wherein said tube includes an end section selected from the group consisting of a flat end section and a pointed end section.
- 7. The improvement of Claim 2, wherein said tube includes an end section selected from the group consisting of a flat end section and a pointed end section.
- 8. The improvement of Claim 3, wherein said perforations have a configuration, selected from the group consisting of circular and elongated.

- 9. The improvement of Claim 2, wherein said tube includes a section configured to form a seal when said tube is inserted through a septum.
- A porous protective sheath for solid phase micro-extraction, comprising:
  a porous tube,

said porous tube having an end section selected from the group consisting of a closed section and an open end section,

said porous tube being provided with at least a section along a length thereof having perforations,

said porous tube containing an active extraction media for carrying out solid phase micro-extraction.

- 11. The sheath of Claim 10, wherein said perforations are located along a substantial length of said tube.
- 12. The sheath of Claim 10, wherein said end section has a configuration selected from the group consisting of flat and pointed end sections.
- 13. The sheath of Claim 10, wherein said perforations have a configuration selected from the groups consisting of circular and non-circular.
- 14. The sheath of Claim 10, wherein said tube is constructed from materials selected from the group consisting of metals and metal alloys.
- 15. The sheath of Claim 10, where said tube additionally includes a section configured top form a seal with an object through which said tube extends.

- 16. The sheath of Claim 10, in combination with an apparatus constructed such that said tube can be retracted into or extended from said apparatus.
- 17. The sheath of Claim 10, wherein said tube is constructed of material having a strength sufficient to carry out a septum piercing operation with damage to said tube.